

**GOVERNMENT VISHWANATH YADAV TAMASKAR
POST GRADUATE AUTONOMOUS COLLEGE
DURG (C.G.)**

(Former Name – Govt. Arts & Science College, Durg)

Phone-0788-2211688, Fax- 0788-2212030

NAAC Accredited Grade 'A+'; CPE Phase - III (UGC, N. Delhi)

Website – www.govtsciencecollegedurg.co.in

DEPARTMENT OF BIOTECHNOLOGY



SYLLABUS

**DIPLOMA IN CONCEPTS OF
EPIDEMIOLOGY**

2022-23

DIPLOMA COURSE

PERIOD – ONE YEAR

PROGRAMME SPECIFIC CODE- DCBT

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PROGRAMME OUTCOME

The programme objectives are –

1. To disseminate holistic knowledge of Epidemiology among students.
2. To develop expertise in the field of Health assessment, Risk Factor Assessment and Epidemiological Study.
3. To use Epidemiology to identify the cause of disease.
4. To develop skill to undertake independent research approach and to accomplish it.

GOVT. V.Y.T. PG. AUTONOMOUS COLLEGE DURG

Approved syllabus for Diploma in Concepts of Epidemiology by the members of Board of Studies for the Session - 2022-23

Marking Scheme for One year Diploma in Concepts of Epidemiology

Course Code & Title of the Paper	Marks Allotted in Theory		Marks Allotted in Internal Assessment		Marks Allotted in Practical
	Max	Min	Max.	Min.	
DCBT 101 - Concepts of Epidemiology	80	16	20	04	100

1 Theory paper	-	80
1 Internal Assessment	-	20
1 Practical	-	100
Total Marks	-	200

The syllabus of Diploma Course is hereby approved for the session 2022-23

Name and Signatures	
University Nominee – Prof. K. K. Sahu	Expert from other subject – Prof. Ranjana Shrivastava
Subject Expert – Dr. Pramod Mahish	Teacher Representation – Dr. Shweta Pandey
Subject Expert – Prof. M. M. Rai	Industrial Representation – Mr. Premanjan Biswas
Chairperson – Prof. Anil Kumar	Student Representation – Dr. Nikhil Mishra

Govt. V.Y.T.PG. Autonomous College, Durg (CG)

Autonomous Examination Cell

Question Paper format and Distribution of Marks for One Year Diploma

Course Examination

Question Paper Format and Distribution of Marks for One Year Diploma Course Examination has been adopted as below mention scheme for the session 2022-23:

1. The question paper will be of 80 marks
2. Questions will be asked Unit-wise in each question paper.
3. From each Unit, the questions will be asked as follows :
 - Q.1 Very short answer type question
(Answer in one or two sentences) (02 Marks)
 - Q.2 Very short answer type question
(Answer in one or two sentences) (02 Marks)
 - Q.3 Short answer type question (Answer in 200-250 words) (04 Marks)
 - Q.4 Long answer type questions (Answer in 400-450 words) (12 Marks)

Type of Question	Unit-I	Unit-II	Unit-III	Unit-IV
For Q1 &2: Very Short (Maximum two sentences)	2 x 2 = 4 Marks	2 x 2 = 4 Marks	2 x 2 = 4 Marks	2 x 2 = 4 Marks
For Q3. Short 200-250 words	1 x 4 = 4 Marks	1 x 4 = 4 Marks	1 x 4 = 4 Marks	1 x 4 = 4 Marks
For Q4. Long answer 400-450 words	1 x 12 = 12 Marks	1 x 12 = 12 Marks	1 x 12 = 12 Marks	1 x 12 = 12 Marks

Note:

1. Question no. 1 and Question 2 will be compulsory.
2. Question no. 3 and 4 will consist of 2 optional questions of which one has to be attempted.
3. As mentioned above, two compulsory very short answer type questions (2+2 marks), one short answer type question with internal choice (4 marks) and one long answer type question with internal choice (12 marks) will be asked from each unit.
Thus there will be questions of 20 marks from each unit and of total 80 marks from all the four units of the syllabus/syllabi.
4. Internal Assessment Examination will be as follows :
 - i. Internal Test in each paper (20 marks)
 - ii. Seminar (Power point presentation) in any one of the paper (20 marks)
 - iii. Assignment in each of the remaining papers (excluding the paper of Seminar. (20 marks)
 - iv. Average of marks obtained in internal test + seminar in any one paper and marks obtained in internal test + assignment in rest of the papers will be calculated and taken into consideration.

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GOVT. V.Y.T.PG. Autonomous College

(Syllabus for Diploma Course)

Session -2022-23

Period – One Year

Class – Diploma Course

Paper No.1 (DCBT 101)

Title of Paper - Concepts of Epidemiology

Max. Marks – 100

Specific Outcome-

The outcome of paper will be empowerment of knowledge of students with the basic concept in epidemiology.

Learning Outcome-

As a learning outcome the student will be competent to understand the problems related to health risks, dynamics of disease transmission, factors for causing the disease and public policy.

DIPLOMA COURSE

DIPLOMA IN CONCEPTS OF EPIDEMIOLOGY

Unit - I

1. Occurrence of Disease.
2. Disease surveillance.
3. Measure of Morbidity.
4. Mortality and Measures of Disease Impact.

Unit - II

1. Dynamics of Disease Transmission.
2. Validity and Reliability of Diagnostic and Screening Tests.
3. Observational and Cross-Sectional Study.
4. Cohort Study.

Unit - III

1. Case Control Study.
2. Assessing Preventive and Therapeutic Measures.
3. Randomized Trials.
4. Estimation of Risks.

Unit – IV

1. Roles of Genetic and Environmental Factors in Disease Causation.
2. Epidemiologic Approach to Evaluating Screening Programs.
3. Epidemiology and Public Policy.
4. Ethical and Professional Issues in Epidemiology.

Suggested Readings –

1. Epidemiology: An Introduction. Kenneth J. J. Rothman. Latest edition / Pub. Date: May 2002. Publisher: Oxford University Press. K. Epidemiology.
2. Leon Gordis. Latest edition / Pub. Date: November 2004. Publisher: Elsevier Health Sciences.
3. L. Diseases and Human Evolution. Ethne Barnes. Latest edition / Latest edition / Pub. Date: March 2005. Publisher: University of New Mexico Press.
4. Epidemiology: Beyond the Basics. F. Javier Nieto, Moyses Szklo. Latest edition / Pub. Date: November 2003. Publisher: Jones & Bartlett Publishers, Inc.
5. Basic and Clinical Biostatistics. Beth Dawson, Robert G. Trapp, Robert Trapp. Latest edition / Pub. Date: March 2004.
6. Discovering Statistics Using SPSS. Andy Field. Latest edition / Pub. Date: April 2005. Publisher: SAGE Publications.

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LAB COURSE

Practical: Max Marks: 100

Unit – I

1. Case Study of a Local Disease.
2. Principle and Practice for Cross Sectional Study.
3. Principle and Practice for Cohort Study.
4. Principle and Practice for Randomized Trial.
5. Methods to Estimate Health Risk.
6. Methods to Estimate Health Hazard Risk.
7. Case Study for Screening Program.

Unit – II

1. Test of Significance for Validation of Epidemiological Data – t-test, chi-square test, f-test, ANOVA test.
2. Application of Correlation, Regression and Probability for Analyses of Epidemiological Data.
3. Mathematical Prediction and Dynamic Study for Epidemics.

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LAB COURSE
Scheme of Marks Distribution

Duration: 1 Days (8 hrs)

M.M.-100

1. 2 experiments from Unit – I	20 each
2. 2 experiments from Unit – II	20 each
3. Internal Assessment	10
4. Viva-voce	10

Total

100

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